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## CAN LAND BE OVERLOADED?

### HOW LITTLE LAND DO PEOPLE NEED TO LIVE ON?

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The mere raising of the question as to what constitutes overloading of the land, raises at the same time the question, when, where and why we have become so short of land that we have to justify, or even to condone, the massing of 500, 750, 1,000, or more people to the acre, for living purposes. Various advantages are alleged for warehousing people in this way. Among others, that it is conducive to sociability, makes coöperative housekeeping, with its manifold benefits, easier, and reduces rent, and the cost of government. An examination of these claims hardly justifies ascribing to these alleged advantages sufficient importance to offset the accompanying and inevitable disadvantages.

It is true that a crowded four or six-story tenement population has all the advantages of propinquity. But propinquity in and of itself does not constitute sociability. It is quite apt indeed to engender irritability, unless there are other factors more potent than mere propinquity to offset it. A sarcastic wit remarked, "God gave us our relatives, but thank God we can choose our friends." This is assigning larger responsibility to the original creator, and a sort of direct action, usually considered to be the exclusive prerogative of the Industrial Workers of the World, and kindred organs of protest.

It is a novel statistical incursion—or shall we call it intrusion—into the realm or psychology, to claim that sociability increases in proportion to the number of people living on the acre. It is doubtless a soothing sentiment to the beneficiaries of capitalized congestion land values. Their formula is so logical and convincing. "If sociability with 250 to the acre equals  $x$ , then sociability with 1,250 to the acre equals  $5 x$ ."

Unfortunately, however, for the proponents of the propinquity sociability theory the Garden Cities of Europe, and especially of

England, with a very strictly limited density of people, have developed unique and very successful sociability.

It should be noted, too, that organized sociability has been attempted chiefly in congested parts of American cities, where the largest number of people could be reached with the minimum per capita expenditure, whether private or public. Sociability may be found to be as indigenous in homelike surroundings as in austere barracks of peace, in this country, as well as abroad.

That coöperative housekeeping, eliminating much of the drudgery of that not too thrilling vocation, would be easier in a three-story tenement than in a village with only ten or fifteen cottages per acre and a population of say seventy people, is self-evident. But such coöperative housekeeping is not materially easier, manifestly, with a density of 750 people to the acre, than in continuous buildings, three stories high, with but 200 to 300 to the acre.

To claim that massing people on a limited area would reduce rents, with our present system of taxation, is manifestly ridiculous. The price for the site of a building is determined by the anticipated revenue. If there are to be many and much rentals collected from a plot of land, intensively used for habitation, the price of the land will increase. It is generally admitted that restrictions upon the volume of building will keep down the price of land, and the construction of large buildings increases the price of land. So too, if 1,000 people are concentrated in a small block it might seem slightly cheaper to provide them with sewers and police protection, but, on the other hand, the cost of land for parks, and sites for public buildings of all sorts, will be much greater.

To what extent density of population per acre, provided all live in well-lighted rooms, with perfect sanitary conditions, and no overcrowding affects morbidity and mortality rates is an open question. No adequate statistics, corrected for age, sex, occupation, social and economic status, and ability to get out of the environment have been compiled. One cannot say that a density of 2,500 people to the acre, *ipso facto*, means a death rate five times as great for all ages as a density of 500 to the acre. A modern sanitary apartment house, on a large plot of land with open spaces all around, with an interior yard so constructed that every living-room has adequate sunlight, might be tenanted with 2,500 people to the acre, all of them with incomes permitting ample space, adequate food and rest and

three months' residence in the country every year, with much less serious menace to their health, than that of 500 people to the acre in unsanitary, crowded, dark-roomed tenements. "All things being equal," is a most important qualification in all estimates of mortality or morbidity rates, due to density of population.

Some rather startling testimony on the results of overcrowding is given, however, by medical men. Dr. George Newman says: "In overcrowded communities life is shorter than under other conditions. Sir Shirley Murphy has compared the length of life in Hampstead with that in Southwark, a poor and overcrowded district, and he finds that comparing males in the two communities, out of 1,000 born in Southwark, 326 die before reaching five years of age, while in Hampstead, out of 1,000 born, only 189 die before reaching the age of five years." This may be due to better milk in Hampstead, but Dr. Newman continues:

At ages 25 to 45, when probably, so far as the community is concerned, the economic value of life is at a maximum, the difference in the two communities is most marked. Thus, of 1,000 males aged 25 living in Southwark, 236 die before reaching the age of 45 years, while the corresponding figure for Hampstead is only 125.

A more convincing proof of the disastrous physical results of overcrowding appears when we examine the mortality statistics for various districts. For example in Edgbaston, the suburb of Birmingham, the general death rate is 13.1, in the overcrowded Floodgate area in the middle of the city, it is 31.5. In Hampstead it is only 9.4 as compared with Finsbury, the most crowded tenement district of London, where it is 21.5. In the least overcrowded census area of Finsbury, the death rate is 14.4; in the most overcrowded census area it is 31.4.

Why then should there be any limitation upon the number of cubic feet of space to be provided? Frankly, not because there are not some advantages in having a good many people live in a limited area, but because those advantages are outweighed by the disadvantages. The standard of housing enunciated by various housing experts and by housing laws in various countries must have some basis in accepted conclusions. The tendency today is toward small buildings, and, whenever commercially feasible, individual homes and detached, or at least small multiple homes with a garden for each family. This is the fundamental purpose of the English town planning act of 1909, of the Garden Cities, the growth of which has been marked during the past decade, and of the German system of

districting or zoning cities, *i.e.*, progressively limiting the number of stories and proportion of the lot area that may be occupied in out-lying sections of cities, as the distance from the old and built-up part increases.

The factors which lead to such arbitrary limitations, supplemented by regulations as to the cubic air space per occupant, are twofold. Experience, if not refined statistics, proves that for the highest physical development, open spaces, and playgrounds are essential. A noted housing expert stated several years ago that certain congested districts of New York City had not only reached but passed the point of human saturation. There were only a few open air spaces in this district with its teeming population, but the density of population per acre for any considerable area would not exceed 600 to 700.

The death rate in some blocks in New York, with a per acre density of over 1,000, is lower than in certain high-class apartment hotels, with a much less dense population.

No American city with a dense population has adequate parks or open spaces within walking distance. One may safely assume that no American city will ever attempt to provide parks and open spaces anywhere near its congested areas to meet the demands of those areas. The price would be prohibitive.

Would it be desirable, however, to have ten-story tenements, or over, only two rooms deep, or four at most, with say a density of 1,200 to the acre, if 30 square feet of playground, or other open space were provided contiguous thereto, for each unit of population, or even 80 square feet? It is difficult to prove any advantage of such unequal treatment of adjoining land. It is probably equally improbable that even 20 square feet of unoccupied area would be left for each one of the 1,200 people, for even assuming that today there are such vacant areas next to such packed ones, the owners of the vacant areas will not rest content with any smaller profit than will the owners of the land which has been capitalized at the anticipated rentals from the intensively utilized land adjoining. The city will assess this vacant land, if it has an equitable system of assessment, properly enforced, at about the same rate as the improved land. Whether the city, or the owner of the building himself, acquire the vacant land so as to secure to the tenants better lighting and ventilation, a heavy price must be paid for the land, because the owner has

a legal right to utilize his land as intensively as his neighbor, each under our blessed system having an equal right to "improve" his land regardless of the effect upon his neighbors. The law of ancient lights, which prevents an owner of land in England from building on his property in such a way as to interfere with his neighbor's light, does not hold in this country.

Of course, an alternative method is to build tenements on the receding plan, *i.e.*, to build straight up for five or six stories—a distance equal to the width of the street say—and then to set back a sufficient distance so as to permit light to enter the buildings on the opposite side of the street. By sufficient dexterity and ingenuity, such tenements can doubtless be constructed on a plot 5,000 or 10,000 feet square, which, with several recessions, would remotely resemble a terraced garden, for plotted plants might appropriately be planted over the roof in this latest venture in applying the mysticism and occultism of the cubist to modern architecture. Incidentally there will not be much, if any, light for the interior rooms in this monstrosity of modernism. The experiment of constructing such buildings might properly be undertaken by some institution like the Russell Sage Foundation.

In the minds of the common people, however, the question may inadvertently and impertinently crop up, "With less than one-tenth of the housing area of almost every great city in the United States utilized with tenements, and with a large proportion of these cities, areas absolutely unused, why speculate on the theory of how many angels may dance on the point of a needle?"

The writer agrees with the common people, instead of with those housing reformers, whether or not directly connected with realty companies, who are anxious to experiment with high densities of population to see whether the condensed population can thrive under certain conditions. It is a very safe assertion that, if the financial profits of the intensive use of land were secured by the community instead of by land owners, these latter gentlemen would not find so many advantages in massing people to the acre. Home life for the people would be much more attractive, if there were just as much profit for land owners in this sort of housing as in warehousing people. The advantages of a home with a bit of a garden would under that condition be accorded better consideration. The blessing of sunlight and air unexhausted by the lungs of thousands would be realized.